E-10495-66 SOURCE CODE: CZ/0039/65/026/001/0014/0018 ACC NR. AP6003696 AUTHOR: Milkova, Eva-Milkova, Ye. (Graduate physicist) ORG: A. S. Popov Communications Engineering Research Institute, Prague (Vyzkumn ustav pro sdelovaci techniku A. S. Popova) TITLE: Cut-off frequency of transistors SOURCE: Slaboproudy obzor, v. 26, no. 1, 1965, 14-18 TOPIC TAGS: transistor, semiconductor research, signal frequency The relationship between the ABSTRACT: cut-off frequency of transistors and their design is discussed. Transistors with a homogeneous base, with a diffused base, and with a diffused and intrinsic base (p-n-i-p transistor) are discussed. The dependence of the drift time upon the diffusion layer's configuration is calculated, under certain simplifying conditions. For a special case, the dependence of hole mobility on the concentration of the doping atoms is considered, and the maximum concentration in the emitter region is computed which gives the ofpimum frequency behavior of the transistor. It is then shown that the configuration of the diffusion layer plays an important role in the p-n-i-p transistor, whereas the total thickness of the base is of small importance. In this respect the p-n-i-p transistor differs from the other transistor types. In conclusion, the theoretical and experimental results are compared. Orig. art. has: 6 figures and 32 formulas. [JRS] SUEM DATE: 24Jun64 / OTH REF: 001 UDC: 621.314.7

CRIZODUBOV, N.I.; MIL'KOVA, Z.A.

Determining the fineness in lime grinding. Sakh. prom. 36 no.7:40-43 J1 12. (MIRA 17:1)

1. Romanskaya gruppovaya laboratoriya.

GRITSENKO, Ye.M.; GRIZODUBOV, N.I.; MIL'KOVA, Z.A.; TYAZHELOVA, G.F.; STASEYEV, G.I.

> Problem deserving attention. Sakh. prom. 37 no.10:28-33 0 163. (MIRA 16:12)

- Ramonskaya gruppovaya laboratoriya (for Gritsenko, Grizodubov).
 Voronezhskiy tekhnologicheskiy institut (for Mil'kova).
 Ramonskiy sakharnyy zavod (for Tyazhelova, Staseyev).

MILKOVIC, B.

Chemical and biostatistical studies on the cow milk of different breeds in the environs of Sisak. Bul so Youg 9 no.4/5:119 Ag-0 164.

1. Chemical and Microbiological Laboratory of the Medical Center, Sisak.

MOMIROVIC, Jelica, Mr.; MILKOVIC, Bojana, mr.; VAJIC, B., dr.

Arbutus unedo, unused source of vitamins. Higijena, Beogr.

7 no.1.4:387-390 1955.

1. Zavod za kemiju prehrane Farmaceutskog fakulteta, Zagreb.

(PLANTS)

Arbutus unedo, source of vitamin C (Ser))

(VITAMIE C,
in Arbutus unedo shrub (Ser))

MILKOVIC, Bojana

SURBAGE (La caps); Given Nemes

Country: Yugoslavia

Academic Degrees: Mr. Ph.

Affiliation: /not given /

Source: Zagreb, Farmaceutski glasnik, No 7-8, July-August 1961, pp 283-284.

Data: Book Reviews "An Introduction to Industrial Mycology," by George

Smith (British).

H - 34

Milkovic, Borivojo.

YUGOSLAVIA / Chemical Technology. Chemical Products and Their

Application. Dyoing and Chemical Troatment of

Toxtilos.

hbs Jour

* Rof Zhur - Khim., No 3, 1958, No 10,111

Author

: Milkovic, Borivojo

Inst

: Not givon

Titlo

: Calculations for Mixtures

Orig Pub

: Tokstil, 1956, 5, No 4, 301-304

Abstract

: Formulas and a graphical mothod for solving the simplest proportion problems which arise in the proparation of two-

component mixtures and solutions are indicated.

Card 1/1

MILKOVIC, Ivan, inz.

10 years of Hydraulic Cooperatives. Gradevinar 14 no.11:402-404 N '62.

1. Chan Redakcionog odbora, "Gradevinar".

MILKOVIC, Ivan, inz.

Some comments on the article "Hydraulic reclamation of land in Yugoslavia." Gradevinar 15 no.5:185-187 Ap *63.

1. Clan Redakcionog odbora, "Gradevinar".

T-7

YUGOSLAVIA/Human and Amimal Physiology - Internal Secretion.

Suprerenal Glands.

Abs Jour : Ref Zhur - Biol., No 18, 1958, 84392

Author : Bozovic, Lj., Milkovic, S.

Inst : -

Title : Stimulating the Hypophysis of Adrenalectomized Rats with

Adrenalin.

Orig Pub : Glasnik biol. sek. Hrvatsko prirodosl. drustvo, 1953 (1955),

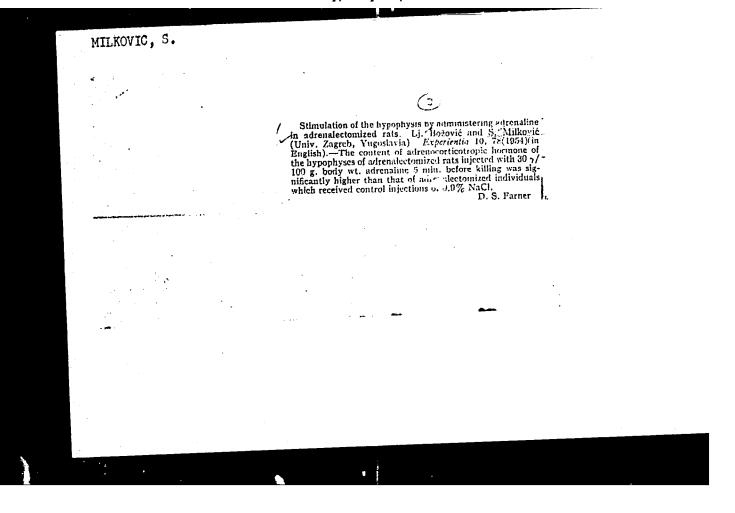
Ser. 2B, 7, 104-105

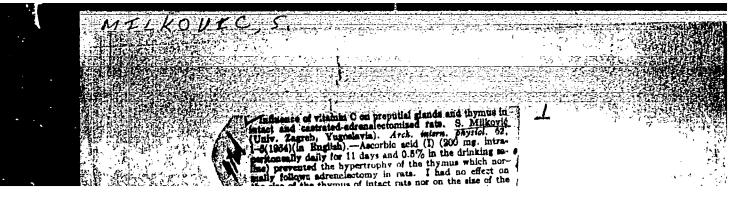
Abstract : Adrenalectomized rats (AR) were intravenously injected

with adrenalin (I); 5 minutes later their hypophyses were extracted in order that their ACTH / adrenocorticotrophic hormone / might be determined. It was found that hypophyses of control rats contained 72 % of ACTH, hypophyses of AR which were given I injections, contained 120 % of ACTH.

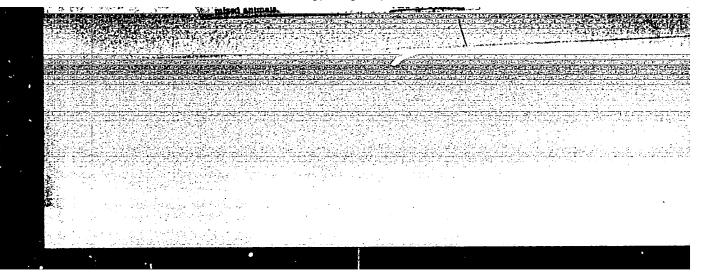
I increases the blood's ACTH content.

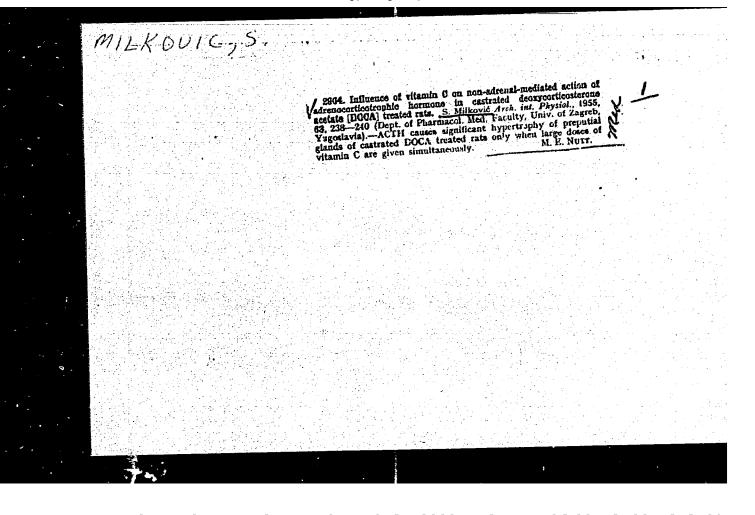
Card 1/1



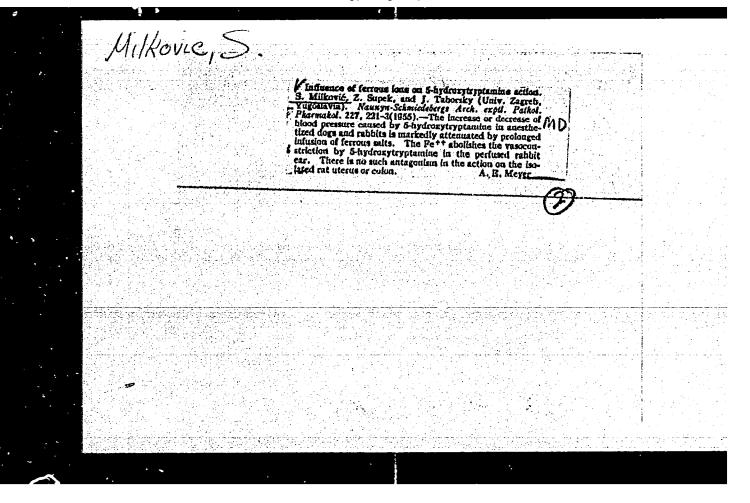


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			Quantitative biological determination of Shydrdrytryp-	
			Quantitative biological determination of 5-hydrdxytryp-tamine. Z. Supek and S. Milković (Univ. Zagreb, Yugo-davie). Experientia 12, 77-2(1950)(in English).—Ratuterus and rat colon prepns, were compared for assay purposes. The latter was found to be the more advantageous.	
			D. S. Farner	
	-			
			한 경험으로 하고 있는 것으로 되었다. 휴 경험하는 것은 사람들은 경험을 받는 아이들이 있는 것이 하는 것은 사람들이 있다.	
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`_	MILKOVIES	
	Action of 5-hydroxytryptamine and lysergic acid diethylamide on the hypophysealadrenocortical system. S. Nilkovia and 2. Supek. Naunyn-Schmiedeberge Arch. exptl. Pathol. Pharmakol. 228, 146(1956)Serotonin in high doses of 0.3 mg./100 g. rat causes ecsinopenia. This effect is not prevented by lysergic acid diethylamide, which otherwise inhibits nany of the effects of serotonin. A. E. Peyer	<u>2</u> 4
	Pmp	
	(clipped abstract)	

YUGOSLAVIA / General Biology. General Histology.

B-3

Abs Jour : Rof Zhur - Biol., No 11, 1958, No 47543

author

: Milkovic-Zulj, K.

Inst

: Not given-

Titlo

: The Effect of Stroptomycin on the Growth of Fibroblasts in

Vitro.

Orig 'Pub : Glasnik Biol Sok Hrvatsko Prirodosl Drustvo, Sor 2B, 7, 266

(1953) (1955)

Abstract : A statistically reliable stimulation of the growth of cardiac fibroblasts in cultures of 11-day-old chick ombryos under the offect of streptomycin is reported. In the opinion of the author the data indicate the possibility of a direct action of stroptomyoin on the fibrous tissues in tubercules.

Card 1/1

7

MILKOVIC-ZULJ, Karmela

Low concentration of streptomycin, and their influence on the isolated fragments of the tissue and organs of the chicken embryo. Biol glas 14 no.1/2:1-11 161.

1. Zavod za biologiju Medicinskog fakulteta Sveucilista u Zagrebu.

MILKOVIC-ZULJ, K.

Functional activity of the pituitary-adrenal endocrine axis in the first postnatal period. Bul sc Youg 8 no. 1/2: 27-28 F-Ap '63.

 Zavod za biologiju Medicinskog fakulteta, Sveuciliste, Zagreb.

MIL'KOVICH, M.

Measuring soil moisture by drying a test sample. Meteor. i gidrol. no.8:57 Ag '65. (MIRA 18:7)

1. Gidrometeorologicheskoye upravleniye Sotsialisticheskoy Respubliki Serbii.

YUGOSLAVIA/Human and Animal Physiology (Normal and Pathological). Tinternal Secretion. General.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 79697.

Author : Milkovich, Stevan.

Inst Title

: Influence of Vitamin C on Preputial Glands and the Thyrus of Intact and Castrated-Adrenal ectomized

Rats

Orig Pub: Glasnik biol. sek. Hrvatsko prirodosl. drustvo, 1953

(1955), Ser. 2B, 7, 265.

Abstract: The introduction of ascorbic acid (I) decreases the

weight of the thymus (T) in castrated-adrenalectomized rats (CAR). This is probably conditioned by the prevention of hypertrophy of the T after adrenalectory. Participation of ACTH was not excluded;

Card : 1/2

48

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YUGOSLAVIA/Form Animals. - Small Horned Stock

Q-3

Abs Jour : Rof Zhur - Biol., No 6, 1958, No 26170

Author

: Mil'kovich V.

Inst

: Not Given

Title

: The Importance of Senen Diluents and of the Number of Spermatozon in the Artificial Insemination of Shoop (Znacheniyo razbaviteley spermy i chisla spermatozoidov pri iskusstvennom osomenenii ovets)

Orig Pub : Acta veterin., 1957, 7, No 2, 75-93

Abstract: By diluting ran's semen with warmed wow's milk and with yolkcitrated or glucose-phosphate diluent, 70.2, 66.7, and 63 percent of fertilizations were obtained, respectively. A mininum number of spermatozor, sufficient to obtainfrom 61 to 68 percent of fertilizations when usingmilk as the semen diluent, Was 30-40 million in 0.5 ml. at the introduction of the semon into the cormix. The increese of the number of spermatozor over 40 million was not augmenting the percentage of fertilization substantially. The artificial insumination of shoep

: 1/2 Cerd

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MIL KOVITSKII, S.I.

TM-1300 boring rig. Shakht.stroi. no.5:19-20 My 57. (MIRA 10:7) (Boring machinery)

MIL!KOVITSKIY, S.I., insh.

Shaft sinking by boring. Ugol' Ukr. 3 no.2:48 F '59. (MIRA 12:3) (Shaft sinking)

YAVORSKIY, Boris Mikhaylovich; DETLAF, Andrey Antonovich; MILKOVSKAYA.

Lidiya Bresielevovan; SERGEYEV, Georgiy Petrovich; ANDSHIRA,

K.I., red. isd-va; SHLYK, M.D., tekhn.red.

[Course of lectures on physics] Kurs lektsii po fizike. Vol.1 [Mechanics, molecular physics, and thermodynamics] Mekhanika, molekuliarnaia fizika i temodinamika. Moskva, Gos. isd-vo (MIRA 12:2)

*Sovetskaia nauka.** 1953. 276 p. (MIRA 12:2)

YAVORSKIY, Boris Mikhaylovich; DETLAF, Andrey Antonovich; MILKOVSKAYA.

Lidiya Bronislavovna; QCRBATOV, Yu.B., starshiy prepodavatel;

red. YERRIPALEVA, N.I., red.isd-ve; VORONINA, R.K., tekhn.red.

[Lecture course in physics] Kurs lektsii po fizike. Moskva, Gos. isd-vo "Vysshaia shkola." Vol.2. [Electricity and magnetism] Elektrichestvo i magnetism. 1960. 421 p. (MIRA 14:2)

1. Kafedra fiziki Moskovskogo energeticheskogo instituta (for Gorbatov).

(Electricity) (Magnetism)

YAVORSKIY, Boris Mikhaylovich; DETLAF, Andrey Antonovich; MILKOVSKAYA, Lidiya Bronislavovna; SERGEYEV, Georgiy Petrovich; PERKOVSKAYA, G.Ye., red.

[Physics course] Kurs fiziki. Moskva, Vysshaia shkola. Vol.1. Izd.3., 1965. 375 p. (MIRA 18:7)

MILKOVSKI, B.

"Printed charts in radio sets."

p. 27 (Radio I Televiziia) Vol. 6, no. 12, 1957 Sofiia, Bulgaria

SO: Monthly Index of East European Accessions (EEAI) IC. Vol. 7, no. 4, April 1958

HILKOVSKI, I.

"On the sowing of early spring crops.", p 11, (KOOPERATIVNO ZEMEDELIE, Vol 6, #1/2 Jan/Feb 1951, Eulgaria)

East European SO: Monthly List of Russian Accessions, Library of Congress,

Vol 2 #8

August

1953, Unc

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CIA-RDP86-00513R001134310(

MILKOVSTI, I

"Sowing the late spring cultured plants", p 74 (KOOPTRATIVNO ZEMPDELIE, Vol 6, #3, Mar. 1951) Bulgaria

SO: Monthly List of Kunstan Accessions/ Library of Congress, August 1953, Unc

MIIKOVSKI, I.

"Taking Care of the Cotton Plant During Its Vegetation. n. 157" (KOOPERATIVNO ZEMEDELIE) Vol. 6, No. 5, May 1951, Sofiya, Bulguria.

SO: Monthly List of East European Accessions L.C. Vol. 2, No. 11, Nov. 1953, Uncl.

MILKOVSKI, I.

Milkovski, I. Technological quality of fiber in the various types of cotton in our country. p.10.

Vol. 4, no. 7, 1955 LEKA PROMISHLEMOST Sofiya, Bulgaria

50: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 2 February, 1956

MILKOVSKI, I.; DRAGOEV, M.

Research on the spinning-technological qualities of fibers from the new sorts of cotton.

P. 40, (Lika Promishlenost) Vol. 6, no. 1, 1957, Sofia, Bulgaria

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957

MILKOVSKI, Iordan

Cotton production in Bulgaria. Priroda Bulg 13 no.6:3-8 N-D '61.

FILKOVSKI, T.

MILKOVSKI, T. Autotransformer connection in the high-frequency cycles. p. 16.

Vol. 5, No. 9, 1956. RADIC TECHNOLOGY Sofiia, Eulgaria

So: East European Accession, Vol. 6, No. 3, March 1957

MILKOVSKI, Y.

National Cotton Conference. Leka Promishlenost (Light Industry), #5:48:May 55

MILKOVSKI, YOR.

Concerning the Technological Properties of Fibers from High Quality Cotton Spread in Our Country. Leka Promishlenost (Light Industry), #7-12:9: July-Dec 1955

MILKOVSKIY, Mikhail Antonovich; ZEYEST, M.B., red.; KONARDOVA, T.F., red. izd-va; LOBANKOVA, R.Ye., tekhn. red.

[Master's handbook for 750-mm. logging railroads] Spravochnik mastera lesovoznykh uzkokoleinykh zheleznykh dorog kolei 750 mm.

Moskva, Goslesbumizdat, 1961. 144 p. (MIRA 14:11)

(Lumber--Transportation) (Railroads)

MILYOVSKIY, M.I

USSR/ Chemistry - Chemical technology

Card 1/1 Pub. 116 - 25/3

Authors & Mozgovoy, V. I., and Kil'kovskiy, M. I.

Title : The problem of the closed water cycle during flotation in coal dressing plants

Periodical : Ukr. khim. zhur. 21/3, 405-409, June 1955

Abstract Efforts were made to develop methods by means of which it would be possible to return water into the flotation cycle after having first removed all solid suspended particles from that water. The determination of the content of flotation agents in the water is considered of prime importance. It was established that the content of suspended substances and flotation agents in waste waters after flotation is 1/3 of the amount fixed. Table; graphs.

Institution: The Artem Mining Inst., Dnepropetrovsk

Submitted: February 25, 1955

SMTK, B.; MILKOVSKA A.

Effect of infrared rays in disinfection of grain for planting; preliminary communication. Acta microb. polon 5 no.1-2:133-135 1956.

1. Z Katedry Mikrobiologii Rolnej WSR w Krakowie.

(INFRARED RAYS, effects,
grain disinfect. (Pol))

(ANTISEPSIS AND ASEPSIS,
infrared grain disinfect. (Pol))

(GRAIN,
infrared diginfect. (Pol))

POLAND / Soil Scionco. Minoral Fortilizors.

J-4

Abs Jour

: Rof. Zhur - Biologiya, No 17, 1958, No. 77418

Author

: Smyk, B.; Milkowska, A.

Inst

: Second Cracow Agricultural School

Titlo

: Influonco of Minoral Fortilizors and Sheep Manuro on Soil

Micro-Flora of Alpino Pasturos

Orig Pub

: Acta microbiol. polon., 1956, 5, No 1-2, 165-171

Abstract

: The Dopartment of Agricultural Microbiology of the Secondary Agricultural School in Cracow established that the intro-

duction of N50P60K80 significantly strongthons the

microbiological activity of alpine pastures; still better is the effect of mineral fertilizers, together with animal excretions when, during one night in a corral there is 1

shoop per 2m2. -- Z. I. Zhurbitskiy.

Card 1/1

30

الأباللة ومستستلافه

WEISS, Marian; MILKOWSKA, Alicja; KOZINSKA, Maria

Conservative treatment of scoliosis, in the light of electromyographic data. Chir. narz. ruchu 22 no.2:197-209 1957.

1. Z Kliniki Ortopedycznej A. M. w Warszawie i ze Szpitala Chirurgii Kostnej w Konstancinie Kierownik: prof. dr. A. Gruca Z Zakladu Leczniczego Usprawniania A. W. F. w Warszawie Kierownik: z-ca prof., kand. nauk M. Weiss Z Centralnej Poradni Miedzyszkolnej w Warszawie Kierownik: dr K. Sokal. Konstancin k/Warszawy, Szpital Chirurgii Kostnje. (SCOLIOSIS, ther.

conservative, based on electromyographic data of musc. funct. (Pol))
(ELECTROMYOGRAPHY, in var. dis.

scoliosis, value of data on musc. funct. in conservative ther. (Pol))

MILKOWSKA, Alioja

Report from the course on soil microbiology held in the Pasteur Institute in Paris during September 1963. Wiadom botan 8 no.3/4: Suppl: Biul egrod botan no.3/4:267-268 164.

MILKOWSKA, Jadwiga

Medicinal plants in the Lublin Province. I. Ann.Univ.Lublin; sec.D 14:321-354 *59.

1. Z Katedry Botaniki Farmaceutycznej Wydzialu Farmaceutycznego Akademii Medycnej w Lublinie Kierownik: zast. prof. dr Tadeusz Szynal. (PLANTS MEDICINAL)

MILKOWSKA, Jadwiga

Histochemical investigations of sulphhydryl groups in meristematic plant cells. Ann. Univ., Luhlin sect.D 16:441-445 *61.

1. Z Katedry i Zakladu Histologii i Embriologii Wydzialu Lekarskiego Akademii Medycznej w Lublinie Kierownik: prof. dr med. Stanislaw Grzycki.

(SULFHYDRYL COMPOUNDS) (PLANTS)

GRZYCKA, K.; MILKOWSKA, J.

The dwarf birch (Betula nama L.) in the Botanical Garden of Maria Curie-Sklodowska University in Lublin. Wiadom botan 6 no.2:178-179 '62.

MILKOWSKA, Jadviga

Histochemical and histophotometric investigations of proteinbound SH and SS groups in the meristematic root cells. Ann. Univ. Lublin sect. D 19:441-453 * 64.

1. Katedra i Zaklad Histologii i Embriologii, Nydzial Lekarski, AM w Lublinie (Kierownik: prof. dr. med. Stanislaw Grzycki) i Katedra i Zaklad Botaniki Farmaceutycznej, Wydzial Farmaceutyczny, AM w Lublinie (Kierownik: doc. dr. Tadeusz Szynal).

MILKOWSKA, Jadwiga

Protein bound SH and SS groups in the meristematic root cells of Lupinus luteus L. Ann. Univ. Lublin sect. D 19:479-487 164.

1. Katedra i Zaklad Histologii i Embriologii, Wydzial Lekarski AM w Imblinie (Kierownik: prof. dr. med. Stanislaw Grzycki) i Katedra i Zaklad Botaniki Farmaceutycznej, Wydzial Farmaceutyczny AM w Imblinie (Kierownik: doc. dr. Tadeusz Szynal).

MILKOWSKA, M.: STATKIEWICZ, J.

The effect of the load on the life of relay contacts in a railroad signaling system. Archiw automat 4 no.3/4:281-293 *59. (EEAI 9:7)

1. Politechnika Wrocławska Katedra Teletechniki Loczeniowej i Centralny Osrodek Badan i Rozwoju Techniki Kolejnictwa. (Railroads)

MILKOWSKA, Maria.

Electric contacts and contactor materials; a conference in Moscow in 1959. Archiw automat 5 no.2:273-278 *60. (ERAI 9:10)

1. Politechnika Warszawska, Katedra Techniki Laczeniowej. (Electric contactors)

MILKOWSKA. M. STATKIEWICZ, J.

Sintered contact materials for relays of railroad signaling equipment. Archiv automat 6 no.1:79-91 '61. (EEAI 10:5)

1. Politechnika Wroclawska, Katedra Teletechniki Lacseniowej.
(Automatic control) (Railroads) (Electric contactors)
(Powder metal processes) (Relays)

MI.KOWSKA, Maria, prof. dr; PIATKOWSKI, Antoni, mgr inz.

Simplified calling selectors for MB telephone party lines. Przegl kolej elektrotech 15 no.7:180-185 Jl. 163.

DOZANSKA, Wiers; SIKOROMSKA, Celina; MILKOWSKA-JANKOWSKA, Donuta

Intestinal viruses in water and sewages. Roozn penstw zakl hig 14 no.2:167-178 '63

1. Department of Hunicipal Hygiene, State Institute of Hygiene, Marsaw.

HAMAN, Stefania; MILKOWSKA-JANKOWSKA, Danuta; ZIEMINSKA, Stefania

Application of brilliant green bile broth in tests confirming the presence of coliform organisms in water and soil. Roczn panstw zakl hig 15 no.1:79-84 164.

1. Department of Communal Hygiene, State I stitute of Hygiene, Warsaw. Head of Department: prof dr J. Just.

MILKOWSKI, Alfons

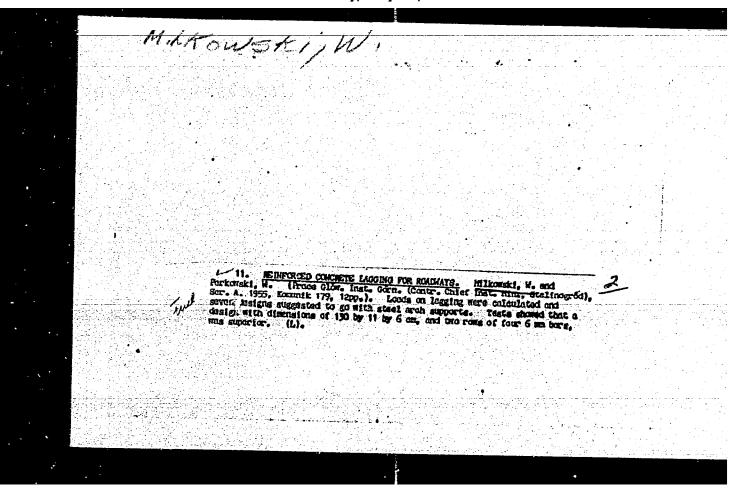
Issuance of judgment on pensions in cases pending in court. Pracasebesp spol 5 no.2:14-17 F *63.

1. Okregowy Sad Ubespieczen Spolecznych, Szczecin.

MILKOWSKI, Marian

The Malpasset catastrophe in Frejus. Przegl techn 81 no.24:15-16 Je 160.

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MILKCUSKI, W.; ZYSKA, E.

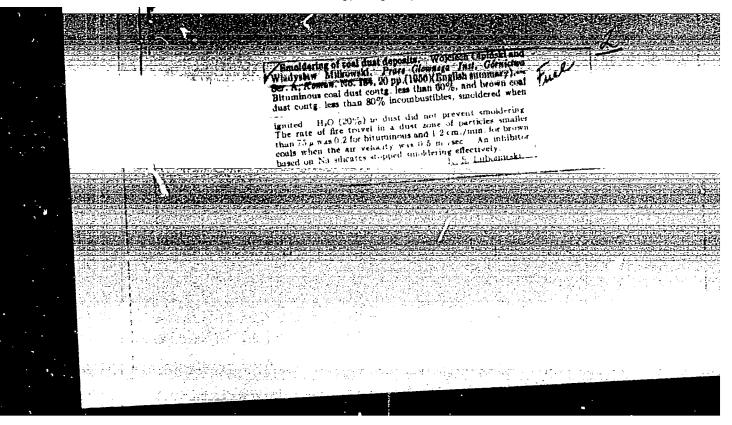
MILKCWSKI, W.; ZYSKA, E. Laboratory researches on fireproofing mine timber.

<u>BIULETYN.</u> p. 29.

Vol. 11, No. 12, Dec. 1955 PRZECLAD GORNICZY TECHNOLCGY Foland

So: East Europeon Accession, Vol. 5, No. 5, Pay 1956

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001134310

H-24 COUNTRY : roland CATEGORY No. 88087 1959, : RZKhim., No. ABS. JOUR. : Milkowski, W.; Olpinski, W.; Zyska, B. SOFFUA : Main Institute of Mining : Testing of Preparations Imparting Fire-INST. PIPLE Resistance to Bracing Lumber : Prace Glown. inst. gorn., 1958, A, No 223, ORIG. PUB. 30 s., il.

#35TRACT : Description of production technology of a new preparation. Experiments have shown that lumber impregnated with this preparation is not ignited by fire even at a fairly high temperature. In addition it is resistant to fungi which attack bracing lumber in mines. From author's summary. CARD: 237

MILKOWSKI, W.

Possibilities of precipitating suspensions in turbulent systems. Biuletyn. p. 23.

PRZEGLAD GORNICZY. (Stowarzyszenie Naukowo-Techniczne Insynierow i Technikow Gornictum) Kalowice, Poland, Vol. 15, no. 9, Sept. 1959.

Monthly list of East European Accessions (EEAI) IC, Vol. 9, no. 1, Jan. 1960.

Uncl.

S/081/62/000/023/086/120 B144/B186

// 5000 S AUTHOR:

Mikkowski, Władysław

TITLE:

Use of polar substances to improve the corrosion resistance

of hydraulic oils

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 23, 1962, 596-597, abstract 23M224 (Przegl. górn., v. 18, no. 4, 1962; Biul. Clówn. inst. górn., v. 13, no. 1, 5 - 8 [Pol.])

TEXT: It is shown that the intensive corrosion observed in hydraulic and pneumatic-hydraulic mechanisms in shafts is due to insufficient protective properties of hydraulic oils (HO). Of the 15 polar substances added to HO, which were studied under laboratory conditions, additions of glycerin distearate (I) (97.3 % and of glycerin monooleate 98% reduction) most effectively reduced corrosion. The optimum concentration of I was effectively reduced corrosion in 1.75 - 2.0 %. Additions of I reliably protect steel against corrosion in soft and hard mine water, with pH 5 - 8.5 and in 0.1 N HNO solution.

Test under underground conditions confirmed the high efficiency of I. [Abstracter's note: Complete translation.]
Card 1/1

MILKOWSKI, Wladyslaw, mgr.,inz.

Corrosion of iron and steel in mine surroundings. Przegl gorn 18 no.3:180-185 '62.

MILKU, St, akad. (Rumania)

Achievements and prospect in science in the Rumanian People's Republic. Spisanie BAN 6 no.3:92-95 '61.

MILKU, Sh. M.; TSIMEL', G.; PETRYA, I.

1. Institut endokrinologii im. K. I. Parkhona, Bukharest, Adres avtorov: Bukharest, Institut endokrinologii im. K. 1. Parkhona.

(CYTOTOXIC DRUGS) (ENDOCRINE GLANDS)

MIKU. Sht.M. [Milcu, S.M.]; PETRYA, I. [Petrea, I.]; STETESKU, C. [Statescu, O.]

Preliminary results of cytoautoradiographic studies with electron microscopy. TSitologiia 6 no.1:110-113 Ja-F '64. (MIRA 17:9)

1. Laboratoriya elektronnoy mikroskopii Instituta endokrinologii AN Rumynskoy Narodnoy Respubliki, Bukharest, Rumyniya.

MILKU, Sht. [Milcu, St.]; SIMIONESKU, N. [Simionescu, N.]

Histological changes in the hypophysis, adrenal cortex and ovary in female sterility connected with the Itsenko-Cushing syndrome. Probl. endok. i gorm. 11 no.5:38-41 S-0 '65. (MIRA 19:1)

1. Institut endokrinologii Rumynskoy Narodnoy Respubliki, Bukharest. Submitted June 16, 1964.

RZUCIDIA L., MILKULASZEK E., WALECKI H.

Bedania immunochesicano smiennych form palecaki durowej.

[Immunochemical investigation on variation forms of Salmonella Typhi] Med. dosw. mikrob. 2:3-4: 1950 p. 323-48.

1. Of the National Institute of Hygiene and of the Institute of Medical Microbiology of Warsen Medical Academy. CIML Vol. 20, No. 10 Oct 1951

MILKUNOV, D.

MILKUNOW, D. Research on certain elements of ordinary prestressed concrete for floors and other constructions. p.9.

Vol. 3, no. 3/4, 1956, STROITELSTVO, SOFIYA, BULGARIA.

SO: Monthly List of East European Accessions, (EFAL), LC, Vol. 5, no. 10, Oct. 1956.

MILKUNOV, D.

"Computing large panels for dwellings without framework."

STROITELSTVO: Vol. 6, No. 5, 1959; Sofiia, Bulgaria

Monthly list of E/ST EUROPE'N ACCESSIONS INDEX (EUAI), Library of Congress, Vol. 8, Mo. 8, August, 1959

Unclassified

7,

KAPUSTINSKIY, A.F.; MALITSEV, A.K.; MILL!, B.V.

Low-temperature form of sulfur. Zhur.neorg.khim. 5 no.2:506 1 160. (MIRA 13:6)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Hendeleyeva. (Sulfur)

26653 s/070/61/006/005/011/011 E132/E560

15.2620

AUTHORS: Mill', B.V. and Naumova, I.I.

TITLE: Syntheses in the system Y203-Fe203-H20

PERIODICAL: Kristallografiya, 1961, Vol.6, No.5, pp.800-803

TEXT:

Although as described by J. W. Nielsen (Refs.l and 2: Phys. Chem. Solids, 5, 202, 1958; J. Appl. Phys., suppl. to, 31, 5, 518, 1960) yttrium iron garnet (YIG) can be grown from the melt by slow cooling from 1250 to 900°C it is also known that garnets can be made hydrothermally at about 600-700°C from the mixed oxides. This method was tried for YIG using a pressure of up to 2000 atm. The autoclave was closed, the pressure being supplied by the water vapour. Temperatures from 300 to 550°C were tried at 50° intervals. A range of ratios of Y202/Fe202 were employed with 5-15% of various additives such as NaOH, LiCl etc. After heating, the solid residue was boiled in nitric acid and the undissolved parts examined microscopically. Out of some 100 trials the following phases were found:—YIG, YFeO2, magnetite and haematite—there were also some specimens for which the X-ray powder photographs could not be identified. YIG was not obtained below Card 1/3

Syntheses in the system ...

26653 \$/070/61/006/005/011/011 £132/£560

500°C. 9 out of 11 runs at 550°C contained YIG. Magnetite crystals up to 1.5 mm in size were found in association with the YIG crystals which reached only 0.4 mm. The successful solutions were those of NH4Cl, LiCl, CaCl2 and NaCl and the coefficient of filling of the bomb was 0.4-0.6. The crystals obtained were rhombic dodecahedra. YFeO₃ was formed in the interval $350-550^{\circ}$ C when the ratio of Y₂O₃ to Fe₂O₃ was 3:1 to 1:2 using solutions of The crystals were in chlorides, H_3BO_3 , $Na_2B_4O_7$, NaOH and Na_2CO_3 . Magnetite was obtained from the form of orthorhombic prisms. 450-550°C most profusely in the case of NH4Cl solutions and less efficiently for the other chloride solutions. The magnetite apparently came from the corrosion of the vessel. are expressed to P. V. Klevtsov and A. A. Shternberg for There are 5 figures and 10 references: 3 Soviet and 7 non-Soviet. The English-language references read as follows: Refs. 1 and 2 (quoted in text); Ref. 5: M. W. Shafer, Rustum Roy. J. Amer. Ceram. Soc., 38, 11, 563, 1959; Ref.6: R. Schmalz. J. Geophys. Res., 64, 5, 575, 1959. Card 2/3

Syntheses in the system

s/070/61/006/005/011/011

E132/E560

ASSOCIATIONS:

Institut kristallografii AN SSSR

(Institute of Crystallography AS USSR)
Institute neorganicheskoy khimii Sibirskogo

otdeleniya AN SSSR

(Institute of Inorganic Chemistry of the

Siberian Section of the AS USSR)

SUBMITTED:

March 11, 1961

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Card 3/3

KAPUSTEISKIY, A.F. [deceased]; MAL'TSEV, A.E.; MILL', B.V.

Investigating brown and green sulfur by differential thermal analysis at low temperatures. Trudy MMHTI nc.35:77-81 (MIRA 14:10)

MILL', B.V.

Hydrothermal synthesis of yttrium ferrate. Kristallografiia 7 no.4:644-645 Jl-Ag '62. (MIRA 15:11)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR. (Yttrium ferrate crystals--Growth)

ACCESSION NR: AP4041152

\$/0020/64/156/004/0814/0816

AUTHOR: Mill', B. V.

TITLE: Hydrothermal synthesis of garnets containing V3+, In3+, and Sc3+

SOURCE: AN SSSR. Doklady*, v. 156, no. 4, 1964, 814-816

ropic TAGS: garnet synthesis, hydrothermal garnet synthesis, Ca₃V₂Si₃O₁₂, Cd₃V₂Si₃O₁₂, Cd₃V₂Ge₃O₁₂, Mn₃V₂Ge₃O₁₂, Ca₃Sc₂Si₃O₁₂, Ca₃In₂Ge₃O₁₂, Cd₃In₂Ge₃O₁₂, vanadium containing garnet, indium containing garnet, scandium containing garnet

ABSTRACT: This article describes the synthesis of Ca₃V₂Si₃O₁₂, Ca₃V₂Ge₃O₁₂, Cd₃V₂Ge₃O₁₂, and Mn₃V₂Ge₃O₁₂ garnets containing vanadium, Ca₃Sc₂Si₃O₁₂ garnet containing scandium, and Ca₃In₂Si₃O₁₂, Ca₃In₂Ge₃O₁₂, and Cd₃In₂Ge₃O₁₂ garnets in which the octahedral positions are fully occupied by indium. Methods described in a previous article (B. V. Mill', I. I. Naumova, Kristallografiya,

Card 1/3

ACCESSION NR: AP4041152

v. 6, no. 5, 1961, 800) were used for synthesis. The crystals of synthesized substances had a rhombododecahedron {110} form, characteristic of garnets. Crystals were investigated with the aid of a microscope and x-rays. The density was determined pycnometrically at 25C in benzene. It was noticed that the excess of bivalent cations favors the synthesis. The synthesis was also affected by the structure of the components of the mixture. In the case of Ca garnets, better results were obtained when Ca²⁺ was introduced in the form of CaCO₃ instead of Ca(OH)₂. The largest crystals were obtained for Mn₃V₂Ge₃O₁₂ It was found that Ca₃In₂Si₃O₁₂ and Ca₃In₂Ge₃O₁₂ possess the biggest lattice constant between the known milicate and germanium garnets.

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Inorganic Chemistry, Siberian Division, Academy of Sciences SSSR)

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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001134310

ACCESSION NR: AP4041152
SUBMITTED: 16Jan64 ATD PRESS: 3064 ENCL: 00
SUB GODE: IC NO REP SOV: 003 OTHER: 004

L 57868-65 EWA(k)/FBD/EVIG(r)/EVIT(1)/EXT(m)/EEC(k)-2/LIZ(t)/T/EVIP(t)/EEC(b)-2/EXP(k) EVIP(b)/EWA(m)-2/EVIA(h) Pm-4/Pn-4/Po-4/Pf-4/Peb/P1-4/P1-4 SCTB/IJP(c) #IG/JD

ACCESSION NR: AP5016922

UR/0192/65/006/003/0471/0473

542.65

AUTHOR: Mill', B. V.

TITLE: Synthesis of garnets containing Mn3+ and Rh3+ ions

SOURCE: Zhurnal strukturnoy khimii, v. 6, no. 3, 1965, 471-473

TOPIC TAGS: garnet synthesis, manganese germanium garnet, rhodium germanium garnet, hydrothermal synthesis, laser application 15

ABSTRACT: Ca3Mn2Ge3O12, Cd3Mn2Ge3O12, Ca3Rh2Ge3O12, and Cd3Rh2Ge3O12 garnets have been prepared by ceramic technique and the crystals of the first two garnets have been synthesized hydrothermally. The preparations were undertaken to verify the assumed feasibility of substituting magnetic Mn3+ and diamagnetic Rh3+ ions for Ge ions in octahedral positions in the garnet-type structures. Hydrothermal synthesis was carried out at 300—550C and 1300 atm in aqueous solutions of ammonium, calcium, or cadmium chlorides, as described earlier by the author [Dok1. AN SSSR, 156, 4, 814, 1964]. The effects of molar composition of the charge and of the nature of solvent on the yield were investigated. The crystals of Mn3+ garnets up to 0.2 mm in size were obtained and their morphology and lattice constant were determined microscopically and by x-ray analysis. The sttempts failed to prepare Rh3+ garnets, Cord 1/2

L 57868-65 ACCESSION NR: AP5016922					/
Ca3Mn2Si3O12, and Mn3Mn2O Ca3Rh2Si3O12 by ceramic t	le 3012 hydrothern technique. This	ally and Mng and earlier	Mn ₂ Ge ₃ O ₁₂ studies of	, Mn3Rh2Ge3O1; n garnet type	struc-
tures led to the conclusi depends only on their res	ion that substitu	tion of cati	ons in oc	tahedral posi	tions
stitution of V34, Mn 34,	and Rh ³⁷ ions for	re st in YaF	e5012, be	cause of the	probab]
laser action of certain	of these ions, ar	alogous to t	he earlie: ls. Orig	r reported las	ser l table
ispolication of Cr or in vi	ctrium aluminum s	BURNET CLARE			
application of Cr 3 in y	service de materiale :	arnet Crysta			[JK]
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MILL', B.V.

Synthesis of garnets with large cations. Dokl. AN SSSR 165 no.3:555-558 N '65. (MIRA 18:11)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR. Submitted April 9, 1965.

当代者の教育者の主任のようなかられば、たけ IJP(c) JD/JG/GG EW:(1)/EWT(m)/T/EWP(t)/ETI L 47325-66 ACC NR: AR6025765 SOURCE CODE: UR/0058/66/000/004/A077/A077 AUTHOR: Mill', B. V.; Klevtsov, P. V. TITLE: Experience in the study of the conditions of hydrothermal synthesis of iron garnets of yttrium and rare-earth elements Û SOURCE: Ref. 7h. Fizika, Abs. 4A647 REF.SOURCE: Sb. Simpozium. Protsessy sinteza i rosta kristallov i plenok poluprovodnik. materialov, 1965. Tezisy dokl. Novosibirsk, 1965, 21 TOPIC TAGS: yttrium, iron, garnet, rare earth element, garnet hydrothermal synthesis, pressure effect, temperature dependence ABSTRACT: A study was made of the conditions of hydrothermal synthesis of yttrium iron garnets (YIG) in solutions of iron chloride in the interval 400 -- 625°. In the FeCl solution, in the absence of priming centers, the garnet is produced only under reducing conditions. In the absence of reducing conditions, the synthesis occurs above 520° when priming centers are introduced. Optimal conditions for the synthesis of YIG in FeCl₂ solution are found to be 450 -- 625° for mixtures with excess of iron oxide and 525 -- 540° for stoichiometric charges. The kinetics and the influence of the pressure on the synthesis of YIG in FeCl, solution are investigated. [Translation of abstract]. SUB CODE: mjs

SOURCE CODE: UR/0363/66/002/010/1861/1864 ACC NR: AP6032950 AUTHOR: Mill', B. V.; Zadneprovskiy, G. M.; Bakakin, V. V. ORG: Institute of Inorganic Chemistry, SO, Academy of Sciences SSSE (Institut neorganicheskoy SO Akademii nauk SSSR) TITLE: New compounds with garnet structure SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 10, 1966, 1861-1864 TOPIC TAGS: ceramic material, crystal lattice structure, garnet, structure, ferrite, gallium garnet, iron garnet, CHEMICAL SYNTHESIS, GALLIUM ABSTRACT: Fifteen new compounds with garnet-type structure were synthesized by standard ceramic technique in the search for less expensive substitutions for rare earths in garnet-type compounds to be used in uhf technology or in lasers. The new compounds, without any expensive components, belong to three types: $\{Ca_3\}[H^4+H^{5+}](H^{3+}_3)O_{12}(I)$, where M⁴⁺ = Ti, Zr, Hf, or Sn, H⁵⁺ = Ta or Nb, and H³⁺ = Ga or Fe; (Ca₃)[H¹⁺₂](V⁵⁺₃H²⁺₂)O₁₂(II), where H⁴⁺ = Zr, Hf, or Sn and H³⁺ = Ga or Fe, and (Ca₂SH¹₃)[H¹⁺₂](Ga₃)O₁₂(III), where H⁴⁺ = Zr or Hf. The synthesized compounds of all three types may be derived from the rare-earth element ferrites or gallates by substituting in $\text{Ln}_3\text{H}_3^{+0}\text{O}_{12}$ Ca^{2+} or Ca^{2+} and H^{4+} Card 1/2 UDC: 549.73

for Ln3+ (Ln = rare-earth element or Y) or by partially substituting H4+, H5+, or both cations for Fe3+ or Ga3+. The Fe garnets and certain Ga garnets of type I could not be made single-phase. Only five Ga garnets of this type were prepared as a single-phase ceramic material. The Ta5+ containing garnats I were synthesized for the first time.

Apparently, the V5+ containing I garnets cannot be formed, but five new garnets of the II type were prepared, in which V5+ occupies tetrahedral vacancies. Only Ga-garnets of this type were single-phase. The two Ga garnets of type III were prepared as single-phase ceramics by sintering the mixtures $3CaCO_3 + 3H^{6+}O_2 + Ga_2O_3$ or $2.5CaCO_3 + 2.5H^{6+}O_2 + 1.5Ga_2O_3$, where $H^{6+} = Zr$ or Hf. These two compounds offer the first examples of the octahedral in addition to hexahedral coordination of Zr4+ and Hf4+ and of the implantation of four valent cations in general into dodecahedral vacancies in the garnets. This implantation is limited by the relative size of Ca2+ and Zr4+ as was shown by the unsuccassful attempt to prepare Ga-garnets containing even more Zr4+ in dodecahedral vacancies than in formula III. The feasibility should be explored of preparing a continuous series of solid solutions in the (Ln $^3_{2\times}$ Ca $_{2\times}$ Ca

ORIG REF: 002/ SUB CODE: 11/ SUBH DATE: 28Aug65/

Card 2/2

EWT(m)/EWP(t)/ETI SOURCE CODE: UR/0363/66/002/010/1865/1869 IJP(c) L 06167-67 ACC NR: AP6032951 13 AUTHOR: Mill', B. V.; Klevtsov, P. V. ORG: Institute of Inorganic Chemistry, SO Academy of Sciences, SSSR (Institut neorganicheskoy khimii SO Akademii nauk SSSR) SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 10, 1966, 1865-1869 TITIE: Hydrothermal synthesis of yttrium-iron garnet TOPIC TAGS: crystal growth, hydrothermal method, ferrite, rare earth element ferrite, yttrium ferrite, garnet, yttrium, iron, inorganic synthesis ABSTRACT: The study of hydrothermal synthesis of yttrium-iron garnet (YIG) crystals has been continued to define more accurately the optimum conditions and the chemical mechanism of crystal growth in various hydrothermal systems. This study is part of a broader study by the same group of authors of the hydrothermal synthesis of rare earth element ferrites with garnet structure, which have valuable magnetic properties. Hydrothermal synthesis of YIG crystals was studied in the Y₂O₃-Fe₂O₃-H₂O - NaOH, Y₂O₃-Fe₂O₃-H₂O-FeCl₂ systems. Crystal formation, reaction below the control of the tion kinetics, and yield of YIG crystals were investigated at variable charge composition, temperature, and pressure. YIG was synthesized at 450-550C from 5-50% NaOH solutions in floating platinium inserts in the autoclave but only from the charge rich in Fe₂O₃. Formation of YIG crystals in a FeCl₃ solution was detected within the 400-600C range at about 1500 atm., and with the charges of composition varying within 3:1 to 1:6 range of Y203/Fe203 molar ratios. YIG crystals obtained from FeCl3 UDC: 546.723'641-31: 549.73 Card 1/2

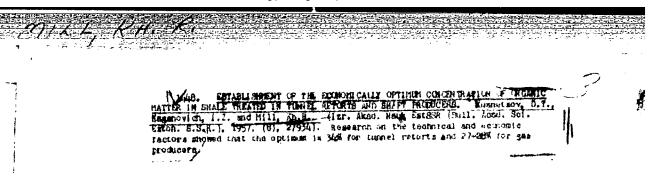
L 06167-67 ACC NR: AP6032951

solution without seeding, but only in a reducing medium, i.e., in the presence of Fe²⁺. Magnetite and orthoferrite crystals were formed simultaneously with YIG under these conditions. In the absence of Fe²⁺, YIG crystals alone were grown from FeCl₃ solutions only on single crystal seed in hermetically sealed titanium inserts and at above 520C. The seed crystal increased by 200—300% in weight. Synthesis of YIG in above 520C. The product always contained some magnetite which was formed in the mol. ratios. The product always contained some magnetite which was formed in the reaction of FeCl₂ with the Fe₂O₃ of the charge. The simultaneously producted FeCl₃ plays an important role in the synthetic process. High yields of YIG were obtained in FeCl₂ solutions in the 450—625C range from the Fe₂O₃-rich charges and in the fecl₂ solutions in the 450—625C range from the Fe₂O₃-rich charges and in the 1-1.5 mm in FeCl₂ solutions containing FeCl₃ and 1.5—2 mm in FeCl₃ solutions. The crystals formed in FeCl₃ solutions were better in quality Recrystallization on a seed was not possible from FeCl₂ solutions because of decomposition of YIG in these solutions. Orig. art. has: 3 figure and 1 formula.

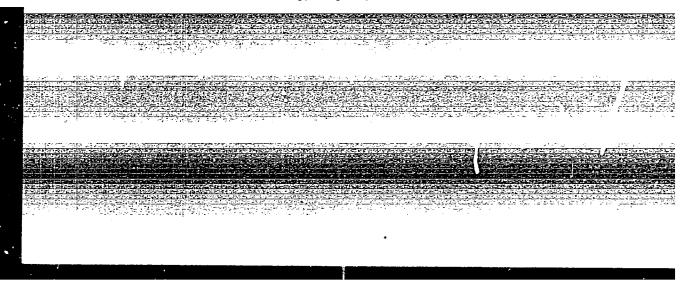
SUB CODE: 20/ SUBM DATE: 28Aug65/ ORIG REF: 008/ OTH REF: 004

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GORDIN, A.Yu.; MILL!, L.A.

Industrial training shops. Politekh.obuch. no.5:11-17 by 159.

(MIRA 12:7)

1. Srednyaya shkola No.5!## g.Noskvy.

(Moscow---Mamual training)

GORDIN, A.Yu.; MILL', L.A.

Students' wages. Politekh.obuch. no.9:9-14 8 '59.
(MIRA 12:12)

1. Srednyaya shkola No.544 g.Moskvy.
(Moscow--Education, Cooperative)
(Wages)

LEWANDOWSKA, Krystyna; MILIA, Jan

A case of mediastinal pneumothorax during the course of whooping cough pneumonia and septicemia. Pediat.polska 35 no.2:211-215 F **160.

1. Z II Kliniki Chorob Dzieci A.M. w Poznaniu. Kierownik: doc. dr.med. Q. Szczepski.

(SEPTICEMIA in inf.& child.)

(PMEUMONIA in inf.& child.) (WHOOPING COUGH compl.) (PMEUMOTHORAX in inf.& child.)

POLAND

KILLAK, Konrad [Affiliation not given]

"200th Anniversary of the Veterinary School in Lyon."

Warsaw-Lublin, Medycyna Weterynaryjna, Vol 18, No 9, Sep 62, pp 516-518.

Abstract: A brief story of the founding of the Veterinary School in Lyon and its founder. Some mention is made of its contribution to the promotion of veterinary science in Poland, and text is included of greatings sent from the Veterinary School in Warsaw to the Lyon school on the occasion.

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----- some or rereign origin who taught in Polish higher schools of learning or generally contributed to the advance of veterinary practice in Poland. There are 11 references, of which six are Polish, four are German, and one is French.

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POLANE

CILLAK, Konrad, Center for the History of Voterinary Medicine (Osrodek Historii Medycyny Weterynaryjnej)

"First Diploma of Master of Veterinary Sciences granted in 1347 to Robert Stichel by the Medical Council of the Polish Kingdom."

Warsaw-Lublin, Medycyna Weterynaryjna, Vol 19, No 6, Jun 63, pp 340-343.

Abstract: [Author's French and Russian summaries] Author describes the procedure of awarding veterinary diplomas in the first half of the 19th century in the Kingdom of Poland, presents a photograph and complete description of the first diploma of Haster of Veterinary Arts awarded by the Kingdom's Medical Council to Robert Stichel, and gives a biography of the recipient. References are to nine (9) publications and four (4) documents, all Polish, with the exception of one publication in German.

1/1

MILIAVARI, Jozsef, dr., MAV titkar-jogtanacsos, foeloado

Some disputed questions of the practice of arbitration commissions concerning official council reports and certificates. Kozleked kozl 20 no.47:769-773 22 N 164.

1. Law Office of the Hungarian State Railways, Budapent.

MILLER, A., kand.khim.nauk; IOKHANNES, E. [Johannes, E.]

1. Academy of Sciences of the Estonian S.S.R., Institute of Geology.

R/005/60/000/001/004/004 D264/D301

9.1300

Millea, Aurel, Engineer

TITLE:

AUTHOR:

•

On some properties of curved waveguides

PERIODICAL:

Telecomunicații, no. 1, 1960, 34-36

TEXT: Because of difficulties in solving problems of curved wave-guides, the author tries to find a solution for equations of the electromagnetic field in curved waveguides - at least in the simpler cases - by a method similar to that applied to straight guides, i.e. by finding some elementary transversal-electrical and transversal-magnetic waves, with a sinusoidal distribution along the guide's axis. The author first establishes the necessary condition, on the basis of which elementary TE or TM waves should exist in a curved waveguide of a certain constant section along the guide. Then he proves that TE as well as TM waves always exist at the critical frequencies of the curved waveguide, deducing for this case a very simply shaped scalar equation. Considered is a curved waveguide with a constant section and with perfectly conducting walls. The axis

Card 1/3

R/005/60/000/001/004/004

On some properties of curved waveguides D264/D301

of the guide represents a plane curve Γ . In this case, a system of orthogonal coordinates can be used, consisting of the s arc along the Γ curve and plane cartesian coordinates 5 and η in the normal planes of the Γ curve, the origin of these coordinates coinciding with the intersection of the Γ curve and the normal plane. Selected is the coordinate 5 in the plane of the Γ curve. In case of TM type waves, the author deduces the equation $\frac{\sqrt{3}U}{\sqrt{3}\eta} = 0$ (16)

in which γ is the propagation constant. This equation may be fulfilled if: $\gamma = 0$, $\gamma = \infty$, or $\partial U/\partial \eta = 0$. In the first case, the curved guide degenerates into a straight line, the second case corresponds to a critical frequency of the guide, and in the third case all components of the field are zero. Thus the following important property results: In a curved waveguide of a certain constant section along the guide, transversal-magnetic waves cannot exist with a sinusoidal distribution along the guide, except at critical frequencies $\gamma = \infty$. In case of TE type waves, the vector potential is selected as follows: $E = j\omega b, \qquad (17)$ $E = j\omega b, \qquad (18)$

Card 2/3

On some properties of curved waveguides R/005/60/000/001/004/004 D264/D301

with the condition div b = 0. (19) Contrary to the TM waves, in case of TE waves a case exists when they can be propagated in the curved guide at every frequency above the critical one. For TE waves, the following property results: In a curved waveguide of a certain constant section transversal-electric waves cannot exist with sinusoidal distribution along the guide, except at critical frequencies, $\gamma = \infty$. There is a single exception, i.e. waves of TE_{mo} type which can exist in the curved waveguides of a rectangular section. The critical frequencies of the curved waveguides may be defined as frequencies at which the field intensity does not vary with the "s" coordinate. For TM type waves, the author deduces the relation:

 $\frac{\partial^2 F}{\partial \xi^2} + \frac{\partial^2 F}{\partial \eta^2} - \frac{\nu}{h} \frac{\partial F}{\partial \xi} + k^2 F = 0$ (29)

in which $F = hE_8$. For the TE type waves, an identical equation is obtained, F being equal with hH_8 . There are 3 references: 2 Sovietbloc and 1 non-Soviet-bloc.

Card 3/3